

## Search Results -

Term	Documents	
(1 AND 2 AND 3).DWPI.	2	
(L1 AND L2 AND L3).DWPI.	2	

Search:	Recall Text Clear	Refine Search	
Database:	US Patents Full-Text Database US Pre-Grant Publication Full-Text Database JPO Abstracts Database EPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins		

DATE: Friday, April 05, 2002 Printable Copy Create Case

Set Name Query		Hit Count Set Name	
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DB=DWPI	PLUR=YES; OP=ADJ	7	
<u>L4</u>	11 and 12 and 13	2	<u>L4</u>
<u>L3</u>	carrier	285120	<u>L3</u>
<u>L2</u>	amino acid	46727	<u>L2</u>
L.1	sea adil water	11709	L1

**END OF SEARCH HISTORY** 

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## Search Results - Record(s) 1 through 2 of 2 returned.

1. Document ID: JP 2000212306 A

L4: Entry 1 of 2

File: DWPI

Aug 2, 2000

DERWENT-ACC-NO: 2001-074032

DERWENT-WEEK: 200111

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TITLE: Negative ion-exchanging film, includes specified styrene repeat units having alkylene quat. amine groups and/or amino groups attached to ring

PRIORITY-DATA: 1999JP-0013228 (January 21, 1999)

PATENT-FAMILY:

PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

JP 2000212306 A

August 2, 2000

015

C08J005/22

INT-CL (IPC):  $\underline{B01}$   $\underline{D}$   $\underline{53/34}$ ;  $\underline{B01}$   $\underline{D}$   $\underline{53/77}$ ;  $\underline{B01}$   $\underline{J}$   $\underline{41/14}$ ;  $\underline{B01}$   $\underline{J}$   $\underline{47/12}$ ;  $\underline{C02}$   $\underline{F}$   $\underline{1/469}$ ;  $\underline{C08}$   $\underline{F}$   $\underline{12/28}$ ;  $\underline{C08}$   $\underline{J}$   $\underline{5/22}$ 

ABSTRACTED-PUB-NO: JP2000212306A

BASIC-ABSTRACT:

NOVELTY - A negative ion-exchanging film comprises polymer containing repeating unit (1-1) and/or (2-2) as constitutional components.

DETAILED DESCRIPTION - A negative ion-exchanging film comprises polymer containing repeating unit of formula (1) and/or (2) as constitutional components.

A = 3-8C straight chain, branched alkylene or 4-8C alkoxymethylene;

R1, R2, R3 = H, up to 6C alkyl or alkanol.

INDEPENDENT CLAIMS are also included for an anion-exchanging film which is prepared by laminating the anion exchanging film defined above and a positive ion-exchanging film; an anion-exchanging film which contains continuous phase consisting of cation-exchanger and a continuous phase consisting of the anion-exchanger, containing repeating unit (1) and/or (2) as constitutional components; an anion-exchanging film which contains a continuous phase consisting of porous carrier material and a continuous phase which comprises anion-exchanging film containing repeating unit (1) and/or (2) as constitutional components; an anion-exchanging film which is prepared by laminating an anion-exchanging film, consisting of polymer containing repeating unit (1) as constitutional component, with anion-exchanging film, consisting of polymer containing repeating unit (2) as constitutional component; an anion-exchanging film which is a crosslinking anion-exchanger of formula (3) containing 5-99 mol % of constituting unit, P and 0.1-50 mol % of constituting unit, Q; preparation of the anion-exchanging film which comprises polymerizing solution containing monomer of formula (4) in the presence of a polymerization initiator into film form and, if necessary, converting into anion-exchanging group; electrodialysis method and its equipment; and an electrical deionizing equipment.

Z = Cl, Br, I, OH, tosyl, primary to tertiary amine or ammonium group-NR1R2R3;

R1, R2, R3 = H, up to 6C alkyl or alkanol.

USE - The anion-exchanging film is suitable for desalting, treating, filtering, ion-exchanging, condensing, separating, reacting and purifying aqueous solution containing ionic substances, ion charge fine particles, coloring material, radiation material, polymer electrolyte, amino acid and/or protein. The anion-exchanging film is suitable for electrodialysis, electrical deionizing method and treating discharged gas. The anion-exchanging film is useful for producing sea water-condensed salt, brackish water, low-chlorine ion caustic soda solution, condensing of Glauber's salt, Glauber's salt-zinc sulfate, sodium sulfite, a desalted whey-protein, salt-decreased soy bean source, purification of sugar solution, electric fermentation, removal of inorganic acids and inorganic salts from amino acids, condensation, removal of metal ion, removal of radiative ion, producing of acid and alkali, double decomposition reaction, bath controlling of electrodeposition coating bath, electrical deionizing, desulfurizing from discharged gas, barrier film for battery, ion-exchanging film for fuel battery, ion-exchanging filtering material, synthetic catalyst, deodorizing antibacterial film.

ADVANTAGE - The anion-exchanging film has good thermoresistance, chemical stability, anti-oxidizing properties and holds the anion-exchanging function even under high temperatures, in oxidizing atmosphere, high-concentrated solution. The anion-exchanging film only slightly elutes from resin, has good reaction speed, low content of reinforcing agent and good flexibility.

## Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims Met Draw Desc Ctp Img Image

2. Document ID: JP 57083235 A

L4: Entry 2 of 2 File: DWPI May 25, 1982

DERWENT-ACC-NO: 1982-53893E

DERWENT-WEEK: 198226

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TITLE: Breeding fish and shell fish spawn in sea water - using a floating source of nutrients etc., made e.g. from polyacrylonitrile film

PRIORITY-DATA: 1980JP-0155842 (November 7, 1980)

PATENT-FAMILY:

PUB-NO PUB-DATE LANGUAGE PAGES MAIN-IPC

JP 57083235 A May 25, 1982 004

INT-CL (IPC): A01K 61/00

ABSTRACTED-PUB-NO: JP57083235A

BASIC-ABSTRACT:

A <u>carrier</u> e.g. of foamed natural or synthetic plastic material, natural or synthetic fibre or film (e.g. polyacrylonitrile film, etc.) etc., bearing nutrients e.g. natural or synthetic nutrients selected from phosphoric acid, ortho-phosphoric acid, polyphosphoric acid, alkali metal salts of nitric acid, sulphuric acid, hydrochloric acid, and carbonic acid, the alkaline earth metal and ammonium salts of these acids, ammonia, urea, various <u>amino acids</u>, various animal or vegetable proteins, essential <u>amino acids</u>, fats and oils, saccharides, nucleic acid, enzymes, vitamins, hormones, etc. is floated so as to elute slowly these nutrients from the <u>carrier into the sea</u> water.

The method contributes to the growth of the spawn and fry of fish and shellfish being cultured in sea water.

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